

Appln. No. 10/524,787
Amd. dated September 7, 2010
Reply to Office Action of May 4, 2010

REMARKS

The Office Action has been carefully reviewed. Claim 59 is allowed. Withdrawn claims 24-29, 46, 51-58, 60 and 61 are cancelled without prejudice to refiling in a divisional application. Claims 7 and 63-68 are only objected to as being dependent from a rejected base claim but would be allowable if rewritten in independent form. Claims 1, 7, 15-17, 21-23, 59, and 62-68 presently appear in this application and define patentable subject matter warranting their allowance. Reconsideration and allowance are hereby respectfully solicited.

The claims have been objected to because the examiner indicates that the lines are crowded too closely together. This objection is obviated by presenting the claims in this amendment in double space.

Reconsideration and withdrawal of this objection are therefore respectfully requested.

Claims 1, 4-7, 12, 13, 15-17, 21-23 and 62 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite for the recitation of "human mRNA gene sequence" in claim 1. This rejection is obviated by the amendment to claim 1, which deletes this recitation.

Reconsideration and withdrawal of the rejection are therefore respectfully requested.

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Claims 1, 4-7, 12, 13, 15-17, 21-23 and 62 have been rejected under 35 U.S.C. §112, first paragraph, for lack of enablement because the examiner states that it is unclear if a polynucleotide which comprises/encodes an mRNA and having the exact chemical identity of "the human mRNA gene sequence" of claim 1 is known or publicly available. This rejection is obviated by the amendment to claim 1, which deletes this recitation.

Reconsideration and withdrawal of the rejection are therefore respectfully requested.

Claims 1, 4-6, 12, 13, 15-17, 21-23, 30, 36, 38, 39, 43-45 and 62 have been rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. This rejection is partly obviated and partly traversed.

Rejected claims 4-6 and 12 are cancelled and claim 1 is amended to delete the listing of polynucleotides overexpressed in human colon carcinoma cells, thereby obviating part of this rejection.

Claim 1 is further amended to specifically recite the seven specific peptides from objected to dependent claims 7 and 63-68 in Markush format and to clarify that the optional one

amino acid substitution is a "conservative" amino acid substitution as commonly recognized and understood in the art.

The recitation of "conservative" amino acid substitution is supported in the specification at paragraph [0072] on page 33 of the present specification, where it is disclosed that the peptides can be subject to changes such as the replacement of one (or more) "similar" amino acid residues. The use of the term "similar" or "dissimilar" in this paragraph would be instantly recognized and implicitly understood by those of skill in the art to mean "conservative", as commonly used in the art with amino acid substitutions.

The present specification, using a 9-mer peptide as an example in paragraph [0062], teaches in paragraph [0063] that residues in positions P2 and P9 include the anchor residues which are the main residues participating in the binding to MHC class I molecules, more specifically HLA-A2.1. It is also taught in paragraph [0065] that residues in positions P1 and P3 are known to include amino acid residues which participate or assist in binding to MHC molecules and in paragraph [0067] that residues P4-P8 do not participate in binding to MHC molecules but rather are presented to the immune cells. Given the fact that only a single optional "conservative" amino acid residue substitution is encompassed by the present claims within seven specifically

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defined peptide sequences of 8-10 residues in length and the guidance provided in the specification regarding the function of the specific residue positions in the peptides, applicants submit that adequate written description is provided by the present specification to reasonably convey to one skilled in the art that the inventors, at the time the application was filed, had possession of the presently claimed invention.

Reconsideration and withdrawal of the rejection are therefore respectfully requested.

In view of the above, the claims comply with 35 U.S.C. §112 and define patentable subject matter warranting their allowance. Favorable consideration and early allowance are earnestly urged.

Respectfully submitted,

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